

CLAIMS:

1. A chain of a chainsaw, especially a chain of a chainsaw for concrete, with a plurality of teeth with at least one cutting segment carrier (12, 14) and at least one cutting  
5 segment (3b) comprising hard-material granules (6) embedded in a bond (5), characterized in that the hard-material granules (6) are melted into the bond (5b).

2. The chain of a chainsaw according to Claim 1, characterized in that a molten connection is formed between the at least one cutting segment (b) and the at least one cutting segment carrier (12, 14).

10 3. The chain of a chainsaw according to Claim 1 or 2, characterized in that the at least one cutting segment (3b) widens out conically in a cross section transversely to a direction of chain travel (L), starting from the at least one cutting segment carrier (12, 14).

15 4. The chain of a chainsaw according to Claim 1, 2 or 3, characterized in that the at least one cutting segment carrier (12, 14) has a support (14) for the at least one cutting segment (3b), that is obliquely positioned in a direction of chain travel (L) and that the cutting segment (3b) tapers in the direction of chain travel (L).

20 5. The chain of a chainsaw according to at least one of the previous claims, characterized in that cutting segments (3b) for a free cut project from a surface surrounded by the chain of a chainsaw.

6. The chain of a chainsaw according to at least one of the previous claims, characterized in that the at least one cutting segment carrier (12) has a tooth of a chain of a chainsaw for wood.

25 7. The chain of a chainsaw according to at least one of the previous claims, characterized in that the at least one cutting segment (3b) forms an active surface (20) arranged substantially parallel to the direction of chain travel (L).

8. The chain of a chainsaw according to at least one of the previous claims, characterized in that the cutting segment (3b) has a thickness between approximately 7-8 mm.

9. The chain of a chainsaw according to at least one of the previous claims, characterized in that the bond (5b) contains bronze.

10. The chain of a chainsaw according to at least one of the previous claims, characterized in that the bond (5b) contains titanium.

11. The chain of a chainsaw according to at least one of the previous claims, characterized by an intermediate layer (10) arranged between the cutting segment (3b) and the cutting segment carrier (12, 14).

12. The chain of a chainsaw according to at least one of the previous claims, characterized in that the hard-material granules comprise diamond granules (6).

13. The chain of a chainsaw according to Claim 12, characterized in that the diamond granules (6) have a diameter of on the average approximately 200  $\mu\text{m}$ .

14. A process for manufacturing a chain of a chainsaw, especially a chain of a chainsaw according to at least one of Claims 1 to 13, with a plurality of teeth with at least one cutting segment carrier (12, 14) and at least one cutting segment (3b), in that hard-material granules (6) and binding material (5b) are applied on a cutting segment carrier (12, 14) and that the binding material (5b) is melted in order to form the cutting segment (3b).

15. The process according to Claim 14, characterized in that the binding material is made available as powder, is compounded with the hard-material granules and applied as a mixture (4) on the cutting segment carrier (12, 14).

16. The process according to Claim 14 or 15, characterized in that an intermediate layer (10) is applied onto the cutting segment carrier (12, 14) with which [intermediate layer] the cutting segment (3b) is melted [fused].

17. The process for manufacturing a chain of a chainsaw for concrete according to at least one of Claims 14, 15 or 16, characterized in that a laser beam (6a) is used for melting.

5 18. The process according to at least one of Claims 14 to 17, characterized in that a binding melt for forming the cutting segment (3b) is supported by at least one ingot mold.

19. The process according to at least one of Claims 14 to 18, characterized in that an active surface (20) running substantially parallel to a direction of chain travel (L) is formed from the at least one cutting segment (3b).

10 20. The process according to at least one of Claims 14 to 19, characterized in that a tooth of a chain of a chainsaw for wood is used as cutting segment carrier (12, 14).